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Annual Report

Storrs Agricultural College

Mansfield
Connecticut

1896-1897

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ANNUAL REPORT

OF THE

TRUSTEES

OF THE

Storrs Agricultural College,

AT

MANSFIELD, CONN.

(P. O. STORRS, CONN.)

For the period embraced within the first day of December, 1896, and November 30, 1897.

PRINTED BY ORDER OF THE LEGISLATURE.

HARTFORD, CONN.:
Press of The Case, Lockwood & Brainard Company.
1898.

OFFICERS OF THE STATION.

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B. F. KOONS, *President of College.*

HENRY C. MILES, *Treasurer.*

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GENERAL VIEW OF COLLEGE BUILDING, 1896



MAIN COLLEGE BUILDING



GROVE COTTAGE



CHEMICAL LABORATORY AND EXPERIMENT STATION OFFICE

State of Connecticut.

REPORT.

To His Excellency LORRIN A. COOKE, *Governor of Connecticut:*

The year just closed has been one of marked progress in the history of the Storrs Agricultural College. The natural growth of the institution has demanded some changes; the progress of events during the year justifies these changes, and the college enters upon the year 1898 with an increased teaching force and with enlarged facilities and appliances for instruction, and with the expressed approval of our work, in number of students fully equal to our accommodations.

There was no special appropriation by the last General Assembly for buildings, and in this line the work has been limited to the erection of an addition to the cattle barn, 28 x 72 feet, to an important addition to the greenhouse, and to the introduction of a system of sanitary plumbing into the dormitories. Most of the buildings have also been repainted, with small repairs, when necessary.

The imperative necessity for this work was so plain as to need no apology for its execution. We should never allow property to suffer from neglect; how much more important is it for us, intrusted with the physical and moral, as well as mental development of so many young men and women, to see that they are not only guarded from all danger to life, health, and character, but led on and encouraged by all their surroundings to make the most of themselves as good citizens, and to justify the expenditures of the State, on this the people's college of the State.

The changes in the faculty, made necessary by the resignation of several members, have resulted in the enlargement of the teaching force and the development of plans for the growth of the college.

life work. Education is not confined to learning facts and figures. It means habits of observation, power of mental application, of correct reasoning, mental control, knowledge of language, in all forms of readiness, accuracy, and power, habits of punctuality, and obedience to authority. We aim to offer all this by a course of study as well adapted for the result as any that has ever been devised. There is no better foundation for professional life, for a man of affairs, to work with his hands or brain, but better with both, than the course offered at Storrs College, and it is because we believe this to be true that we are willing to accept the duty of almoners of the bounty of the State and nation.

In behalf of our patrons, we desire to acknowledge the liberality of the State in the past. We accept it as a pledge for the future that agricultural education will receive its share in the public provision for the mental and moral development of the State.

Extracts from the reports of the President and Faculty give full particulars of the course of instruction, calendar, catalogue of students, rules for examinations and admission, furnish general information. The report of the Treasurer will give the financial condition of the college.

Very respectfully submitted on behalf of the Trustees,

T. S. GOLD, *Secretary.*

CALENDAR.

The college year is composed of forty-four weeks, divided into four terms of eight, thirteen, twelve, and eleven, respectively.

1897.

Winter Term began January 4th, and closed March 26th. Spring Term began April 5th, and closed June 16th. Summer Term opened June 28th, and closed August 20th (8 weeks). Fall Term began September 13th, and closed December 14th.

1898.

Winter Term begins January 3d and closes March 25th. Spring term begins April 4th. Commencement Day, June 15th. Summer Term begins June 27th and closes August 19th. Fall Term begins September 19th, and closes December 20th.

REPORT OF THE PRESIDENT.

To the Trustees Storrs Agricultural College :

GENTLEMEN : — Each year as it passes in the history of the institution, seems to bring more of real progress, more of that which makes for real substantial growth, than any of its predecessors.

Numerous changes have been made in our work, as well as in our corps of instructors.

At the close of the college year in June, Mr. Lewis, the Misses Kenwell and Smith presented their resignations.

Their places have been filled by Mr. Stimson, Miss Lincoln, and Miss Knapp, respectively. The work in the higher mathematics was separated from that of Physics and Chemistry, and Mr. C. A. Wheeler, a graduate of the class of '88, was secured as instructor in the former. Also Horticulture was separated from Botany, and Mr. H. A. Ballou was secured for the latter. Again just as the fall term was opening, Dr. Waterman resigned as Veterinarian, to accept a similar position in Michigan Agricultural College, and Dr. N. S. Mayo of Kansas Agricultural College was secured to fill the vacancy.

A step in the line of progress was made when you secured the services of a competent person to take charge of the library, which is rapidly growing in the number of books as well as in its usefulness. Miss Jessie Bowen has taken hold of the supervision of the library in a very satisfactory manner, and is rapidly classifying and arranging the books in such a way as to make the library in all its parts readily accessible to both pupils and teachers.

The girls at Grove Cottage, under the supervision of their teacher, have entire charge of their dining-room and their cottage generally, as well as assist the cook in the work of the kitchen, and thus they have practical experience in home-

making; and their home life at Grove Cottage in charge of Miss Lincoln, the Lady Principal, and Miss Knapp, teacher of Domestic Science, cannot but exert a refining and elevating influence upon all who reside there.

Parents who place their daughters in charge of these ladies can rest assured that their health and their highest welfare, intellectual and moral, will be zealously and faithfully guarded.

Mr. C. T. Barrett, of West New Brighton, Staten Island, an expert landscape gardener, who was employed to lay out our grounds, locate the new buildings, driveways, etc., has done good work. We thus secure a definite plan towards the completion of which everything tends, utilizes what Nature has already done, prevents mistakes, and secures a harmonious development of the grounds in such a way as to secure the best results.

For further details of the several departments and outline of the work generally, I refer you to the following pages of this report.

B. F. KOONS,
President.

REPORT OF PROF. PHELPS.

To the Board of Trustees of Storrs Agricultural College:

GENTLEMEN:—The instruction in agriculture during the past year has been somewhat changed from the plan of former years, in order to meet new conditions which have been provided by the Board. At the beginning of the year (1897), by your direction, the farm was placed under the general management of the Professor of Agriculture, and this, together with increased duties as Vice-Director of the Experiment Station, necessitated the employment of an assistant, to take charge of part of the work of instruction.

A committee, recently appointed by the Association of Agricultural Colleges and Experiment Stations, has formulated a plan of instruction in agriculture, which it is recommended that all the Agricultural Colleges of the country adopt, in order to

systematize and unify the work of these institutions. It is not supposed that the amount of time given to the various subjects outlined by this committee will be the same in all institutions, but rather that the general plan should be uniform, and that the amount of time given to the various subjects should be modified to suit the special conditions found in each state. The plan is as follows for a four-years course in agriculture, and includes both class-room instruction and laboratory practice.

1.	Agronomy, or plant production,	132 hours.
2.	Zootechny, or animal industry,	162 "
3.	Agrotechny, or agricultural technology,	72 "
4.	Rural engineering, or farm mechanics,	60 "
5.	Rural economics, or farm management,	60 "

A brief synopsis of the course, with text-books suggested, together with additional equipment recommended for illustration and demonstration, has also been given by this committee.

The course in agriculture, as previously outlined and followed at this institution, has covered essentially the same subjects outlined by this committee. The order in which they are taught during the course, however, has been somewhat modified during the past year in order to conform to the plan recommended. As the other courses of instruction at the college are now arranged, however, it will be impossible to devote as much time to the various subjects outlined above as is recommended, or as would seem to be desirable.

The first two subjects in this classification, Plant Production and Animal Industry, will be covered by the Professor of Agriculture, while the third, Agricultural Technology, will include the subject of dairying, and has been assigned to Mr. C. L. Beach. The principles involved in the fourth subject, Farm Mechanics, would most naturally be taught by the Professors of Physics and Mechanics, while their application on the farm in the making of roads, drains, irrigation systems, and in the use of machinery, would be under the direction of the Professor of Agriculture or his assistants. The fifth subject, Rural Economics, is designed to include the history of agriculture, farm management, rural law, and farm accounts. A course of

lectures has been given each year on the history of agriculture, and will be continued as heretofore. It would seem to me, however, that the topic of farm management should be covered by a series of lectures by practical specialists in different lines of farming, and the subject of rural law by some one who has made a specialty of that subject.

It is my aim as far as possible, to make the farm a means of instruction to the students. With this end in view there have been placed in the herd representatives of three of the leading dairy breeds, the Jersey, the Guernsey, and the Ayrshire, and in addition to this the better grades of the original herd, mainly Jerseys and Guernseys, have been retained. These are used to illustrate principles of breeding, and the leading characteristics of the breeds. Some valuable calves are being reared from this stock, while the products of the herd are utilized in the work of instruction in the dairy, and finally to supply the boarding departments and families of the college.

New and improved machinery to be used in the work of planting, cultivating, and harvesting, is being introduced from time to time. It is our endeavor to lay out a system of cropping that will be especially adapted to a dairy farm, and at the same time illustrate a definite system of rotation. The rotation as now planned is a four-years course consisting of corn, oats and peas, clover and grass, clover and grass. The chief products of the farm will be those coming from the dairy. In addition to these such general farm crops as will be wanted in the boarding departments will be grown. My purpose is to combine the work of the farm and the Experiment Station as far as possible. In this way the farm may be made valuable for two purposes. (1) To illustrate various principles in plant and animal production, and (2) to experiment on the growth of crops and the feeding of animals. A feeding test with the dairy herd has been planned for the present winter (1897-8), and the work will be largely carried out by the students. Further details regarding the work of the farm will be found in the report of Prof. Chamberlain.

A course in dairying has been outlined for the regular students for the winter term of the third year. During this

same time a special course in dairying has been planned. The work of the special students will be essentially the same as that covered by the regular students, except that the former will have much more time for laboratory practice in milk-testing, butter-making, etc.

The short dairy course is designed for those who are especially interested in dairying, but have only limited time to devote to study. The principles that underlie modern dairying are being investigated, studied, and put in practice as never before. Old methods can no longer be followed in these times of close competition. The young man who understands the scientific principles that are at the bottom of dairy problems, and knows how to apply them in practice, is the one who will be most successful. Young men whose circumstances will not warrant their taking a longer course, can, in a twelve-weeks course, receive training that will fit them as private dairymen or creamery operators far better than a long apprenticeship in practical work along the same lines.

The dairy building, 30 x 36 feet in size, was occupied for the first time in February, 1897. In design it is a wing to a main building for classrooms and laboratories, which we hope may be built in the near future. For the present all classroom instruction must be given in the main college building. The milk testing will be done in the creamery room, and a limited amount of microscopic work will be offered those who may desire it. The creamery room is equipped with the latest machinery and apparatus for the handling of milk and the manufacture of butter, the use of the Babcock milk test, pasteurization, etc.

Dairy instruction will include: — (1) Classroom work in dairying. (2) Practice in butter-making. (3) Milk-testing. (4) Pasteurization. The classroom instruction will include (1) A study of milk and its products, and such topics will be considered as the constitution of milk, milk-testing, conditions affecting creaming and churning, principles involved in butter and cheese making, the relation of bacteria to the dairy, pasteurization of milk, etc. (2) Cattle-feeding will include such topics as feeding standards, feeding for milk, work, growth, and fattening, the composition and digestibility of fodders, condi-

tions affecting the value of feeding stuffs, silos and silage, siloing crops, the calculation of rations, etc. (3) Lectures will be given on the breeds, and the breeding and selection of dairy stock. (4) The college veterinarian will give a few lectures on the diseases of the dairy cow and their treatment.

No examinations are required of students entering the short dairy course. Residents of the State of at least 16 years of age having a common school education are admitted. Young men who have had practical experience on a dairy farm will generally derive the most benefit from such a course.

Respectfully submitted,

C. S. PHELPS,

Department of Agriculture.

REPORT OF PROF. PEEBLES.

To the Board of Trustees:

GENTLEMEN: — The work of the year past, up to the opening of the school year in September, 1897, has been essentially the same as that of the year previous. It consisted of instruction in Elementary Chemistry to the first and second year classes; in laboratory manipulations to the first year class. One term of Qualitative Analysis to the second year class followed by a term of Volumetric Analysis. To the third and fourth year classes, instruction in Agricultural Chemistry and Quantitative Analysis. The second year class has a term of laboratory work in Physics, and the third year class two terms with text-book in Physics, followed by a term of Meteorology. The course in mathematics has been enlarged by beginning the study of Geometry in the first year and taking two terms in the subject in the second year. Besides Geometry there have been the usual classes in Trigonometry and Surveying with the third and fourth year classes. We have long cherished the hope of greatly enlarging the work in this important department. It gives me great pleasure to welcome the appointment of Prof. Wheeler to the entire charge of this department.

The Library, which has been in my care for the past four years, has made rapid strides in that time, owing to your liberal allowance for the purchase of books. It has now reached a point where its care demands the entire attention of a trained librarian. The appointment at the opening of the present year of Miss Bowen is especially gratifying. I am still glad to assist in the purchase of books. The Extension Department I report under another heading.

Very respectfully,

A. B. PEEBLES,

Dept. Chemistry and Physics.

Report of the Extension Department.

We are still in the experimental stage of this movement for Home Studies. The desirability of furnishing to the large number of people in rural homes something more substantial and practical is felt by all.

Secretary Wilson of the Department of Agriculture in his latest report strikes the key note of the department. He says: "Whatever will be effective in raising the grade of home life on the farm, in securing the better nourishment of the farmer's family, and in surrounding them with the refinements and attractions of a well-ordered home, will powerfully contribute alike to the material prosperity of the country and the general welfare of the farmers." This expresses the design and purpose of this new movement of the college. We are entering upon the second year's work. This will complete the text-book course. A further course of subject studies covering two years is projected for those who complete the first course. This second course will be conducted by means of a traveling library where there is an organized circle of ten or more members. The text-books of the first course are selected with the purpose in view of furnishing a fairly complete course for ladies and for gentlemen in General Science, Agriculture and Domestic Science. The second course is to be more highly specialized.

Courses will be provided in General Agriculture, Fruit Culture, Market Gardening, Poultry Raising, Floriculture, Botany, Agricultural Chemistry, Veterinary, Foods, Sanitation,

Geology, Forestry, English Literature, History, Political Economy.

Some idea of the text-book course may be gained from a list of the books selected. For the ladies' course:

First Year.

1. "Home Floriculture," by Rexford, ... $.60
2. "Easiest Ways in Housekeeping and Cooking," Helen Campbell, .60
3. "Realm of Nature," Part II, Mill, ...60
 Maps for same, ...30
4. "Story of the Plants," Allen, ...30

Second Year.

1. "Household Economics," or $1.00
 "How We Did at Cooking School," 75
2. "Hygiene and Physical Culture for Women," Anna Galbraith, or 1.25
 "Physical Development and Exercise for Women," Mary Bissell, 1.00
3. "Realm of Nature," Part I, Mill, ...60
4. "Story of the Bacteria," H. W. Conn, ...30

We feel confident that this course will be found of the highest usefulness, touching as it does the subjects of supreme importance in the management of a well-ordered home. The course for gentlemen is of two years' duration, and is as follows:

First Year.

1. "First Principles of Agriculture," Voorhees, ... $.60
2. "Practical Farm Chemistry," Greiner, ...60
3. "Realm of Nature," Part II, Mill, ...60
4. "Story of the Plants," Allen, ...30

Second Year.

1. "The Principles of Fruit Growing," L. H. Bailey, . . . $1.00
2. "Milk and its Products," H. H. Wing, ...75
3. "The Spraying of Plants," E. G. Lodeman, or 75
 "Dairy Bulletins" (5), U. S. Government, bound, 1 Vol., . . .20
4. "Realm of Nature," Part I, Mill, ...60
5. "Story of the Bacteria," H. W. Conn, ...30

This course appeals to the man on the farm who wants to know the latest conclusions of science as applied to farm industries.



GREENHOUSE



INTERIOR OF GREENHOUSE

This will give some idea of the work the Extension Department is trying to carry on. The working out of the details of the course has involved a great amount of hard work, which has fallen on the Secretary almost entirely. It is a pleasure to find the plan so well received by the people of the State, and also by men of other states who are studying the same problem, — that of reaching the rural population with a literature that will be helpful and uplifting. We expect to modify and rearrange the course as experience shall indicate.

Very respectfully submitted,

A. B. PEEBLES, *Secretary.*

REPORT OF PROF. GULLEY.

To the Trustees of Storrs Agricultural College:

GENTLEMEN: — Classroom work for me has been the same as for the previous year, till the opening of the present college year; then the appointment of an instructor in botany relieved me of teaching this branch to the two younger classes, and left me more time to devote to horticultural matters. The labor of the students in the summer term, aside from that needed for the care of crops and grounds, was devoted to making the main drive through the grounds, instead of finishing the draining of the swamp, which has been in progress the past two seasons. The latter work has advanced so much faster than the breaking up of the land after drainage that it was deemed best to delay it for another year at least.

A portion of the swamp first drained was so thoroughly subdued last year that it was thought best to plant the great part of our vegetable crops there the past season. This was done, and with very favorable prospects until the great summer floods set in, which caused a partial or total failure of many kinds. This result should not be charged to the land, as many crops on much more favorable locations suffered as badly. This same land will be used for the same purpose next season.

The wisdom of placing the general arrangement of the

grounds in charge of a professional landscape gardener is already evident, but starting to carry out his plans has added very materially to the work of the department. The only portion of the plan yet undertaken is the building of a main drive, from an entrance to be near the southeast corner of the "Crane farm," through the grounds in front of the buildings to the entrance near the lake on the Eagleville road. A portion of this was completed early in the year; more was graded during the summer, as already referred to. Later in the season outside help was employed, but not early enough to open the drive this fall. As this road when completed has a foundation of from one to three feet of stone, in places much more, it is safe to call it a permanent improvement. With it has come another in the removal of unsightly stone walls used in making the drive. The laying out and planting of the grounds in accordance with the plans already developed promises plenty of work for this department for some time to come.

Something was done last year in procuring a set of fruit models. Early the past season it was decided to add materially to the collection. To facilitate the work, arrangements were made so that Mrs. Stanley Potter, the artist, came to the college and spent the summer and fall and did the modeling. There are now in the cases 178 specimens, of which sixty are models of important varieties of apples of Connecticut. The others are types of the other classes of large and small fruit, and in addition several specimens of plant diseases and the work of insects, of such as could be produced in wax. The accuracy of coloring and mounting can only be appreciated by those who have seen the collection, and its great value as an assistance in pomological instruction is evident to everyone.

Early in the fall, in accordance with a vote of your board, an addition of a side wing was made to the greenhouse which increased the benchroom about one-fourth, and which is, and will be used for vegetable forcing, allowing the whole of the old house to be used for greenhouse work proper, and which is needed to propagate the large stock of plants now used for summer bedding.

Very little increase was made the past year to our variety in

orchard and vineyard, but the college nursery has now a number of varieties ready for spring planting, which will call for more room then.

Mr. Hibbard Parker, the assistant in the department, having resigned at the close of a year's service, Mr. Walter A. Warren, a graduate of '94, has been appointed in his place. The details of the greenhouse work were ably handled by H. L. Garrigus, a junior during the last college year.

Thanks are due to many fruit-growers of the State, notably J. H. Hale of South Glastonbury and C. G. Allen of Terryville, for specimens of fruit from which our models were made.

Respectfully submitted,

A. G. GULLEY,
Department of Horticulture.

REPORT OF PROF. MAYO.

To the Trustees of Storrs Agricultural College:

GENTLEMEN: — Having taken up the work of the Veterinary Department so recently, I am unable to make a report upon the course of the past year. At present it is conducted upon the same general plan as formerly.

The veterinary course is intended to meet the wants of farmers and stockmen and for that reason will be made just as practical as possible. Special attention will be paid to the conditions, care and feeding, that are conducive to the health of domestic animals, and in the treatment of sick animals good nursing and domestic remedies will be considered in detail. The treatment of wounds, minor surgery, the care of horses' teeth and feet, and the diseases and abnormal conditions incident to parturition will be fully considered.

The specimens of healthy and diseased tissues in the veterinary department are being cleaned, arranged, labeled, and a permanent record is to be kept of each specimen, with its his-

tory so far as is obtainable. A special effort will be made to collect specimens for the veterinary museum, and it is hoped that this will be not only a valuable addition to the equipment of the department but will prove of interest to visitors.

In human anatomy and physiology, the subject will be treated thoroughly, not only from a scientific but a practical point of view, and special stress will be laid upon the preservation of the healthy body.

Respectfully submitted,

NELSON S. MAYO,

Department of Veterinary Science and Physiology.

REPORT OF MISS LINCOLN.

To the Board of Trustees of Storrs Agricultural College:

MUSIC.

GENTLEMEN: — The course in Music is comparatively a new one, having been started since September, 1896.

Until the opening of the present school year, lessons were given only on two days of each week. This year twenty-two young ladies and young men are taking piano lessons (which is almost double the number last year), making it necessary to extend the lessons during the whole week.

Thorough instruction in the technical part of piano-playing is given, and each pupil is taught how to practice and how to make the most of each practice hour. Each lesson is a private one, and the student can progress as rapidly as he is capable of doing. This year the students have been hindered from progressing as rapidly as they otherwise would, for the want of more pianos to practice on, but I hope that obstacle will soon be removed.

Every term closes with a recital given by the more advanced pupils in piano, which gives them something to work for, and keeps them interested in their practicing, as each one is striving to do his or her best.

During the Winter term of 1897, all the piano students joined a class in Musical History, studying the life and compositions of each composer to help them to become intelligent musicians.

This class met once a week, and at each lesson a composition of some famous composer was played and discussed.

Beside the piano instruction, we have a course in singing.

The interest this year in Music is more than last year, and the students realize that it requires study and that it is not mere play, but something that can only be acquired by thorough application. A home is more attractive with music and time is not wasted in acquiring this accomplishment.

GROVE COTTAGE.

There are thirteen young ladies in our home this year. We strive to make it a "home" for the girls and make them feel a responsibility in its care. There are no rules which are not necessary for the health and happiness of the young ladies. Regular hours for exercise and study are observed.

The young ladies have many social privileges. They entertain the young men for a short time every Friday evening and once every month they give a reception to the whole college, which closes promptly at ten o'clock.

Respectfully submitted,

LULIE G. LINCOLN.

REPORT OF MR. H. S. PATTERSON.

DEPARTMENT OF MECHANICS.

To the Trustees of Storrs Agricultural College:

GENTLEMEN: — It is with pleasure that I tender you this, my third annual report of work accomplished, also a brief summary of the present status of this department. First, I

would mention the repainting of the principal buildings on the campus, also the large farm barn and other farm buildings, which has so improved their appearance that it amounts almost to a transformation, and is the cause of much favorable comment.

The building of an addition, 28 feet by 72 feet, to the farm barn is another marked improvement.

Many needed repairs have been made to nearly all the buildings. I would note particularly the system of sanitary plumbing introduced into the new dormitory, which adds greatly to its sanitary condition and the comfort of its inmates.

Much work has been done on the interior of buildings by painting, kalsomining, varnishing, etc. Although a visitor or resident may be able to criticise or find something still undone, if he is an old acquaintance he may well congratulate himself and the institution that there is such marked improvement. Acting on the recent decision of your committee, work is now in progress to introduce a complete system of sanitary plumbing into the lower dormitory.

We still look with pleasure to the time when other much-needed buildings and improvements shall be added to our State College, and shall rejoice in the pride and satisfaction felt by our graduates as they shall, from time to time, visit their Alma Mater.

The buildings and apparatus for use in practical instruction in mechanical drawing, wood and iron work, are in fair order, and with the usual replenishing to tools and stock will be all that is needed for the limited time allowed this department.

The past year has been of marked results for the time spent. Hundreds of specimens of mechanical work were exhibited at fairs in different parts of our State, and recently at an exhibition at Philadelphia, Pa., and have elicited much interested inquiry and favorable comment.

The plan of giving the classes work for exhibition has been a healthy stimulus, resulting in excellent workmanship.

Study and work in this department have always proved popular with all the classes, and regret is often expressed that the course should be so brief.

It is hoped that during the coming winter the course may be somewhat enlarged from that of previous years, and that additional interest may be given it by illustrated lectures on the development of practical and classical art as applied to sculpture, architecture, and general utility.

Respectfully submitted,

HENRY S. PATTERSON,

Department of Mechanics.

REPORT OF MR. CHARLES A. WHEELER.

MATHEMATICS.

GENTLEMEN : — In the brief period since I took up my duties here as an Instructor in Mathematics and sundry studies, the work accomplished will scarcely demand a very prolonged report. I shall give a brief digest of what my classes are doing and shall state as succinctly as possible our methods. In teaching Mathematics, whether of a higher or a lower grade, we aim consciously at two objects, viz., to develop the reasoning faculty of each student, and to impart truth of practical value.

Geometry. 1st year class. The course in Geometry is quite comprehensive in its variety of topics, though it is elementary. It affords a wide survey of the mathematical field, and prepares for the more specific work of Plane Geometry. The class has shown marked progress since its first recitation. A portion of the second year class is spending an hour a week during this term in about the same work.

Arithmetic. The second year class has given the larger portion of this term to percentage, *e. g.*, interest, discount, exchange, partial payments, stocks and bonds, and taxes. Students have volunteered and prepared, by aid of our library, short papers on the P. O. Money Order System, and the N. Y. Clearing House, and their attention has been directed to current financial transactions, and explanations have accompanied. The theory of square root and of cube root has been treated fully, and here

my endeavor has been to make students search for the reasons *why* they go through certain processes in working examples in evolution.

Algebra. Second year class. Here the close relation of the processes to those of Arithmetic and their bearing upon the same have been emphasized. I should like to see this class attain to the proficiency of those in the best High Schools in our State. The ability is here present, but ample time is lacking.

Solid Geometry. Third year class. One hour a week for this term is given to this new subject. The class has found it hard, but the fortitude and zeal of its members have proven them worthy of the name *student*, and have gratified their instructor.

Bookkeeping. Third year class. One hour a week throughout the year is liberally assigned to this subject. The class has worked wholly in Double Entry, journalizing all entries by applying the simple formula of *debiting* each account for what it receives, and *crediting* it with what it gives. We have studied also business forms, and shall take up later Single Entry.

I am glad to observe a healthful *esprit de corps* among the students. Though my relations with them have been characterized by feelings of mutual sympathy and forbearance, it is a source of much gratification to me that they have been responsive to kindly corrections and suggestions.

It would be hard not to comment on the wonderful growth of this institution during the nine years that I have been absent — the fuller course, the better appliances for teaching both the sciences and the arts connected with agriculture, the valuable library and the buildings ; of which it may be that the Grove Cottage deserves especial mention because of the addition it makes to the social factor — too often, I believe, the weakest one — of student life.

Very respectfully,

CHARLES A. WHEELER.

REPORT OF PROFESSOR STIMSON.

To the Trustees of Storrs Agricultural College :

GENTLEMEN : — This is my first report. You remember that my predecessor, Professor Edwin J. Lewis, taught Rhetoric, English Literature, and Ethics. These subjects have been placed in my hands, together with Elocution. This report is intended to show what is being done now in each of these subjects, and what it is hoped to do.

My instruction is confined to the two upper classes. And, since the instruction given the third-year class must prepare for that given the fourth-year class, and since this report—with being a statement of the methods and aims of the present year —may be construed as a promise for the future, it will be best to speak of the instruction given the third-year class first, and then to speak of that given the fourth-year class.

THIRD-YEAR CLASS. SUBJECTS: RHETORIC AND ELOCUTION.

Rhetoric. Three hours a week.

Last year Waddy's "Elements of Composition and Rhetoric" was used as a text-book with the third-year class. It served a good purpose, and its use has been continued. Careful study of the text-book has been required.

The aim here has been the mastery of certain important rhetorical principles. The test has been, not the power of reporting principles alleged to have been mastered, but the mastery of those principles as shown by the precision, force, or felicity of their actual application in creative examples of good English style.

This involved a vast deal of writing, to which, I am glad to say, the students have taken kindly and faithfully, and the writing has accomplished what it was designed to do; it has done away with class instruction, and, in its stead, has introduced individual instruction.

To be intelligent from the beginning in the design and in the execution of this course, I asked each member of the class

to bring me pieces of writing. Study of the text-book was assigned; but no account of it was asked for, until a series of papers on familiar themes of the student's own choosing had been presented.

I read these papers with the greatest interest, because they brought me at once to a clear knowledge of the capacity and attainment of each member of the class.

The first few hours in class were devoted to lectures on reading (The Choice of Books) and writing (The Art of Rhetoric), in order to give me opportunity for the examination of these papers, and in order to bring about a good common introductory understanding.

My object, in general, in dealing individually (and not primarily in a body) with the class has been to make the course in its clear results practical in the highest degree.

The previous training of the students required that the primary matters of neatness, spelling, and punctuation be attended to most immediately and critically: and these matters are in no case allowed to drop from sight. But to these more exact matters, we are adding steadily new elements from the more discretionary field of rhetorical principles. And good gains in both respects already are perceptible.

My aims in this course are: to help each student from the point where he now is as far forward as I can in the critical knowledge of, and in the power to use, good English; and either to inspire or to promote the love of good reading.

It has been very important to use the time to the best advantage. This has determined my method in general.

We have met in class three hours a week. It is usually possible to make all necessary announcements and to receive and return the written papers within the first ten minutes of the hour.

Sometimes, in reading the papers, a large number of criticisms of common interest is found. These are noted for class use, and their discussion occupies the second ten minutes of the hour; and in two cases the entire hour, following the first ten minutes, has been devoted to this purpose.

If there be nothing of common interest to occupy the

second ten minutes, they sometimes are devoted to creative writing on the basis of previous reading and discussion in class. This writing is carefully read over and corrected by the writers, and, afterwards, is read and reported on by me.

Here it must be remembered that the students are given all the reading, studying, and writing that they can do outside of the classroom. And because of this, it is, further, my method, as a rule, to occupy the remainder of each hour, after the first ten or twenty minutes, in such reading and discussion as shall promise to serve about equally the pleasure and the profit of the whole class. This, in addition to the foregoing written criticisms and criticisms in class, constitutes my own special contribution to the course ; but it serves an excellent purpose, also, in furnishing the basis for some of the best writing done by the class. And it is here and hereabouts that the good of the course should be raised to its highest power.

We have now reached the same point, it happens, in Waddy's "Elements of Composition and Rhetoric" which the present senior class had reached at the end of last year, when no written exercises on the basis of the text-book were presented. I mention this because the method of this year happens to vary from that of last, and because I want to show at this point that the course has been thorough. Each student has covered the advance in Waddy with written exercises. And each student has covered Waddy in review by criticising and correcting the exercises written by a fellow student, before the exercises have come to me at all for criticism. This has given me a two-fold test with reference to each student. Less than four weeks of the winter term will finish Waddy ; after which we shall return from the general study of the more discretionary rhetorical elements and principles to the detailed study of the more exact and searching elements of every-day English, here making Hill's "Foundations of Rhetoric" our basis. Writing will be continued throughout the year, and will continue to be read by me as heretofore,—the writing, except in the rarest instances, not being corrected by me, but being criticised in such a way as to lead to its correction by the students themselves.

At this point in the course, the little things of the language will be given the greatest attention. Therefore, in addition to the text-book used, and in addition to my special contributions to the course in reading and discussion in class, each student will read, and in writing report on, some one masterpiece of English style. This should take attention away from the little things of the language to the large things of its purpose.

The first term closed with an examination. But in future it is designed to give no stated examinations ; their place being taken, and a far better purpose for this course being served, either by tests given at unexpected intervals, or by tests given individuals to determine their exact progress. The passing of an examination as the end of study, especially in this subject, is held to be irremediably vicious.

In this course English is studied about equally for the joy and for the utility of its mastery.

Elocution. One hour a week and private appointments with each student.

The aim of this course is practical, to promote good address.

For the technique of delivery, no text-book is used. ("Practical Elocution," by Fulton and Trueblood, is referred to for special points, but is not bought by the students.) But for the basal philosophy of delivery, Curry's "Lessons in Vocal Expression" is used by the students.

The course began with the rudiments of pantomimic training, — education in the language addressed to the eye in public speech. It now has taken up vocal training,— education in the language addressed to the ear in public speech. And during this year this course will undertake to begin to co-ordinate these two elements of address in each member of the class ; in order that the language to the mind in public speech be as clear, and as strong, and as beautiful, as may be.

Public "rhetoricals," in which every member of the class takes part, close this course each term.

A failure of memory finds no relief, because prompting never is allowed. This being understood, while accidents in speaking from memory may happen, nothing embarrassing is

feared, or, as yet, has occurred. And the public "rhetoricals" which closed last term were adjudged promising; not so much because of the exceptional brilliancy of some two or three members of the class as because of the almost uniform excellence of the whole class.

The programme of the public "rhetoricals," which closed the course last term, is herewith submitted.

JUNIOR RHETORICALS.

FRIDAY EVENING, DECEMBER 10, 1897.

Program.

Orchestra.

Miss Carlson.....The Bishop and the Baby. — Margaret E. Sangster.
Mr. Clapp.....Arbitration, International or Accidental. — Depew
Mr. Gardner.....Washington's Character. — Edward Everett
Mr. Gilbert.....American Nationality. — Rufus Choate.
Mr. Green.....Lincoln's Second Inaugural Address.
Mr. Geo. M. Greene.....Mahmood, the Image Breaker. — Lowell.
Miss Hobby.....The Flower Girl — Edith Wordsworth.
Mr. James.....Under the Washington Elm. — Holmes.
Miss Leach.....The Village Preacher. — Goldsmith.
Mr. Manchester.....Henry George. — Anon.

Orchestra.

Mr. Mason.....Our Flag. — Rev. Alford P. Putnam.
Mr. Miner.....An Episode of a Century Ago. — James Lane Allen.
Mr. Nettleton.....Stonewall Jackson's Death. — Anon.
Miss Patterson.....The Death of the Flowers. — Bryant.
Mr. Rosebrooks.....It Never Pays. — Anon.
Mr. Smith.....Opposition to the Declaration. — Daniel Webster.
Mr. Walden.....Circumstantial Evidence. — Anon.
Mr. Way.....Don't Pitch Your Tent among the Dead. — Garfield.
Mr. Welden.....Value of an Education. — Grover Cleveland.
Miss Yale.....The Ringer of the Chimes. — Jeannie Pendleton Ewing.

Orchestra.

FOURTH-YEAR CLASS. SUBJECTS: (RHETORIC), ENGLISH LITERATURE, ELOCUTION, AND ETHICS.

Rhetoric. Three hours a week.

It was necessary to devote the first weeks of this term to Rhetoric, in order to complete Waddy's "Elements of Com-

position and Rhetoric," begun by these students last year. The term opened with introductory lectures on the choice of books and on the art of rhetoric, and with a series of papers written by the students. And the method and aims of this course corresponded closely with those of the course given the third-year students, as outlined above.

This course closed with a detailed examination, on the part of Waddy covered.

"Rhetoric" is put into parentheses here; because in future rhetoric, as such, will be completed at the end of the third year.

English Literature. Fall and winter terms, three hours a week.

The students were expecting to use, as a text-book in this course, Stopford Brooke's "Primer of English Literature." This book has been wisely chosen, and its use has been continued. It will be carefully read by each member of the class, and the knowledge of its important matter tested at unexpected intervals. Except the section on American Literature, which is not from this author's hand, this book furnishes an exceptionally good outline of the origin and growth of English literature from Cædmon on; and in itself furnishes an example of good English style.

But the aim of this course is as far as possible from being the simple mastery of the important matter in this book. The aim, from period to period, is, first, not primarily to read about the best English literature, but to read the best English literature itself; and, second, to discover by whom it has been written, and under exactly what circumstances.

The students, therefore, have been sent beyond Brooke to all available sources for knowledge; and it is not a little encouraging that in our library the facilities for such research are good, and steadily improving. The students already, for example, have made special studies of Chaucer, Sir Thomas More, Marlowe, Shakespeare, Ben Jonson, Milton, Bunyan, and others. They have studied about these men to find out when, and why, and how, they wrote; and they have read

certain of these authors' writings. They have taken such notes as might serve the best purpose; and they have written in their best English, in class and from memory alone, the results of their research. Usually, the first five minutes of the hour in class are given to announcements for the next day, and the next fifteen minutes, sometimes more, to these results.

All writing is carefully examined, and critical help is given each student. But, in addition, at our meetings in this class also, I have made my own special contributions to the course in the form of reading and discussing longer and shorter pieces of good English style, pieces for which, otherwise, the students could find no time; and this I shall continue to do.

In addition to the study and writing above described, each student is pursuing independently the same method of research, estimate, and report, in the preparation of an elaborate essay.

This essay in previous years has been known as the "Comprehensive Essay." Each student chose, November first, a modern author; and no two students chose the same subject. A syllabus of directions was placed in the hands of each student early last term; and this, which may be used more or less by the whole class, will guide in particular those who without it could not prepare this essay profitably. This essay will be presented in its provisional form February first, and in its final form on or before March first. And it must cover reading about the author chosen, reading of the author, and a careful bibliography of all the reading done.

Beginning with the winter term, sections of the subject-matter from the preliminary notes made in preparation of the "Comprehensive Essay" from time to time will be reported by each student to the class, in order that all the members of the class may profit by what each member is doing. Careful notes on these reports, for guidance in future reading, will be made by all the students. And this will form a distinct feature of the course.

Text-Book Note. The Macmillan Company has just given us Stopford A. Brooke's new and greatly improved "English Literature." This appeared too late to be used by the class this year; but it is the best book in existence for its purpose,

and will be used next year. And its use will be that of this year's "Primer of English Literature."

In this course, English is studied about equally to give increased command of English speech, to give good training in research, and to enrich those resources in the students which, in after years, shall help them to keep the company of the noblest minds.

Elocution. One hour a week.

This course as given this class this year is practically uniform with that, above described, given the third-year class. The previous training of the students made this imperative.

But, in future, this course will advance from the rudiments of pantomimic training into the more elaborate parts of the language to the eye. In vocal training, also, it will continue the cultivation of the language to the ear. And it will undertake, in the case of each student, to carry the co-ordination of these two great elements of delivery up as far as possible from the lower into the higher forms of address.

The last term has shown some clear gains. No public "rhetoricals" are held as a test of this course; but their place, in a way, is taken by the delivery by each student of one address each term. These are delivered from time to time at the close of the vesper chapel service before the whole college; and, in past years, have been known as the "Senior Addresses."

Senior Addresses. Three terms. Special appointments.

The preparation and delivery of the Senior Addresses unite English and Elocution.

Last term each student was assigned a date for the delivery of his address. Four weeks before that date each student presented for approval his subject, accompanied by a brief, or by an analysis, showing the nature and field of his material, and its proposed treatment. A week after the approval of the subject and its proposed treatment, the address was presented written. After which, the address was prepared for delivery without notes.

But it was found that four weeks did not give enough time. In cases, different material had to be sought, the subject alone having been approved; or, the material having been approved, different subjects, or briefs, were necessary; or, papers required to be repeatedly re-written.

The greatest interest was shown; and when it was proposed that the subjects be presented longer in advance of the dates assigned for the delivery, nearly all the students took advantage of the offer. This multiplied the labor of preparation, for both student and instructor, but the labor was spent to good purpose. The addresses have been considered creditable to both class and college. And hereafter, six weeks, or as much more time as the students may be pleased to devote, will be given to the writing and delivery of these addresses.

The students collect their own facts; and they treat them themselves, both in the first instance and in the last instance. They understand this responsibility and undertake to meet it. Which means that the instructor assumes no responsibility for the facts, except in so far as they have to do with the particular subjects taught by him; and that he assumes only so much responsibility for the form in which the facts are finally treated as may accrue from criticism and suggestion. And the inherent dignity thus lent the position of the student in his address is worth all the cost.

The students, therefore, choose subjects which are of interest to them for some particular reason; and about which they have acquired some previous knowledge, through reading, or through travel, or through study. They choose them, so far as possible, for their timeliness. And they treat them with especial reference to their audience,— which, after two or three years' acquaintance, they have come to know well.

And the following are some of the subjects treated last term: "The West and the East," by a man who had lived in the West; "Entomology in its Relation to Progressive Farming," delivered early in the series at harvesting and fruit-marketing time; "The World's Student Conference at Northfield," also delivered early in the series, by one who had represented our students at the conference; "The Development (historical) of

Music," treated by one of the leading musicians in the college Band and Orchestra, and Lieutenant of the Cadet Drum Corps; "The Hawaiian Question," by a good reader; "The Homestead Strike and Compulsory Arbitration," a well-balanced address by a German of socialistic descent; and "The Russian Jew in Agriculture," prepared by a Russian Jew, treating the Jew in agriculture on this side of the Atlantic, with especial reference to the first Russian-American Fair, which he had just attended in Philadelphia, and with a brief reference to the recognition of the Jewish agriculturists as shown by Storrs Agricultural College in the exhibit which it sent to the fair in his charge. The practical nature of these addresses and the expression of the individuality of those who wrote them, as must be noticed, were prominent in a marked degree.

Both the practical nature of these addresses and the emphasis upon their essentially personal nature, which is most to be desired in any such productions, have just received very distinct accents. It has been proposed that some of the senior addresses be recommended for publication in the college paper published by the students. This proposition did not originate with the English department, but it is heartily welcomed. From time to time these addresses will be printed in the "Lookout;" and with them brief notices of their writers. Except for some slight revision, they will be printed as delivered. And the first of these addresses to be printed appeared in the "S. A. C. Lookout" for December.

The value of these Senior Addresses, both as a means of discipline in themselves, and as giving point to the instruction in English and in Elocution, cannot be over-estimated.

Ethics. Spring term. Three hours a week. A thesis.

Last year the text-book in this course was Janét's "Elements of Morals." Its use will be continued, and its important matter mastered. Muirhead also will be read; and other outside reading will be provided and encouraged.

There will be written reports; and each student will choose a special topic in ethical fact or theory, do a careful piece of

research, and, as early as two weeks before commencement, present his results in a thesis.

And there will be lectures as the exigencies of the course either permit or demand.

Before the stated study of Ethics begins, the students, through their reading and the discussions in class, long will have been interested in the subject-matter with which Ethics, as the science of conduct, has to do. When the study of Ethics begins this will be discovered, and will furnish a good basal contribution to the success of the course. And, if only one term in Ethics can be provided, it is fitting that it should come as late as possible in the training of the students.

Such, then, are the courses given under my instruction, with a brief statement of their conduct and aims. Guidance by the instructor, practice by the students,—careful suggestion and criticism, and incessant practice and reconsideration, these are the watchwords. A course could not desire to be judged merely by its results, — but it certainly could not endure to be judged by anything less than its results. It is thought that certain clear results of the courses already have begun to appear, and that these results are proving the practical utility of these courses.

It will be noticed that while the class exercises aggregate only eight hours a week, this by no means gauges the time devoted to these courses, either by student or by instructor. For my part, through my method of dealing with individuals — which is everything, or my courses are nothing — not less than eighteen hours a week, and in several cases more than thirty hours a week have been given to my classes, entirely apart from the planning of the courses, and from the preparation of my special contributions. How this must be, one who will sit down to a consideration of the courses, as briefly outlined above, easily, by a little computation, must discover. Nominally giving half of my time during the past term, I have in reality given all of it; and now I am very happy in being fully accredited to do so by the Honorable Board of Trustees.

If the variety and the character of the training given the students by means of these courses be reviewed, they may be

found worthy of note. The students are trained from the first in promptness, in neatness, and in precision. They are trained to do for themselves, not so much to be done for. They are trained in the strength, in the ease, and in the beauty of good English style. They are trained to read the best, not primarily to read about it. They are trained in research, and therefore in the use of the library. And they are trained both in writing and in public address. Through their training they must be being led steadily into the possession of such resources, in quickened instincts and in right canons of judgment, as shall stand them in good stead in future. No conceit of great knowledge or of great power is either provoked or fostered; but, not to speak of Ethics, it is hoped that before the students are given their diplomas they will have reached out to the best English style, touched at least the hem of its garment, and felt something of its virtue come into them.

I have spoken of the methods and aims of these courses. The aims must be left to speak for themselves. The subjects being what they are, the methods are, I believe, scientifically pedagogic. They have grown, in part, out of the peculiar needs found here, in part out of my study in previous years at the university of educational theory and practice; and, in part, instinctively out of my experience under the most successful methods of instruction in which it has been my good fortune to be trained. And, in particular, the methods used in English have stood the tests of comparison and contrast to which they have been subjected the past two months; during which time I have visited eight of the leading New England institutions where English is taught with signal success.

I have recurred to the matter of my aims and methods because, in conclusion, I would like to meet a possible objection.

It may be questioned whether my methods will be practicable when our classes have become three or five times their present size.

In answer to this objection, I would simply urge that long before our classes shall have become three or five times their



GROVE COTTAGE—ENTRANCE HALL



GROVE COTTAGE—PARLOR

present size I hope to have so demonstrated both the practicability of my methods and the high inherent utility of their results that the Gentlemen of the Board of Trustees will have found it wise to furnish me such aid as may be necessary to keep them to their best results. This aid would easily and naturally take the form of an assistant, or of assistants, who, well-advised, should do the more simple and mechanical tasks of reading papers and suggesting criticisms. And it would be reasonable to expect to find in any of our graduating classes in future persons quite competent for such service.

Yours very respectfully,

RUFUS WHITTAKER STIMSON,

(*Harvard*) *A. M.*, (*Yale*) *B. D.*

REPORT OF MISS MAUDE KNAPP.

To the Trustees of Storrs Agricultural College:

GENTLEMEN:—Some changes have been made in the Department of Domestic Science. The new arrangement covers more ground, and extends through the sophomore, junior, and senior years of the college course. Our aim is to train our students thoroughly in all branches of household economy. To best fit our young women for home-makers and home-keepers, in every sense of the term, we instruct them scientifically as well as practically, so that, at the completion of their course, every pupil will possess that knowledge which will enable her to make a home, which shall be healthful, comfortable, and happy at a comparatively small expenditure of time, money, and labor. She will have learned the "why," as well as the "how," and will have become intimately acquainted with the scientific principles which underlie all household problems.

The very good equipment of the laundry, the kitchen-laboratory and the sewing-rooms, in addition to the enthusiasm and interest of the students, gives me every reason to hope for most excellent results.

The first course in sewing includes all the sample-pieces as given in Pratt Institute. Each pupil has a note-book, and as each sample is satisfactorily completed, it is placed in the book with a few brief explanatory notes. The sophomores will also take a course in marketing, by the aid of charts, and a waitress course, with three courses in plain cookery, accompanied by simple talks on the chemistry of food and the physical and chemical changes attendant upon the application of different degrees of heat.

In the third year, the girls will progress in fine sewing and dressmaking, so that in the last year they may make their own dresses for graduation.

They will continue the lessons in plain, fancy, and invalid cookery, canning, preserving, and pickling; their lectures will embrace hygiene, home-nursing, and emergencies. They will study the composition of food and its adulteration, with a number of lectures on physiology of digestion.

The laundry course will include the washing and ironing of all simple wearing apparel, white and colored, the correct way to launder fine fabrics, linens, laces, embroideries, woolens, and colored silks. They will receive instructions in the proper use of washing-powders, starches, bluings, and chemicals, the method of removing stains, grease, etc., and they will also make hard and soft soap.

The fourth year will open with a review of food principles, the study of foods in detail, and will continue with a study of dietaries applicable to youth, middle-age, and old-age, to the sick and the well, and also to special diseases; with lectures upon Household Economics, including chemistry of cleaning, house-furnishing, and house decorations, etc. The Spring science work will be upon Home Sanitation, which will include the location, planning, and building of a house, drainage, disposal of waste and sewage, plumbing construction, and ventilation.

This course is comprehensive and exhaustive, the beginning has been very satisfactory, and everything promises to fill our hopes.

By use of the gymnasium, we aim to develop grace and ease



INTERIOR OF CHEMICAL LABORATORY



DRAWING CLASS

of carriage, correct positions in standing and sitting, and to teach pupils how to breathe and walk properly.

GROVE COTTAGE.

Our boarding club now numbers eighteen permanent members, and is running smoothly. Miss Edwards, our cook, takes a personal interest in our welfare, and co-operates with me in my efforts to make our table varied and inexpensive, yet to furnish a good quality of food, which shall be wholesome, palatable, hygienic, and nourishing. We think we have been thus far successful, because of the good appetites and general excellent health of the household.

In case of sickness, suitable food is especially prepared, and attractively served.

Respectfully submitted,

MAUDE KNAPP.

REPORT OF MISS L. J. BARBER.

To the Trustees of Storrs Agricultural College:

GENTLEMEN: — The work in my departments of Mathematics and English is practically that given in the Catalogue of last year.

Mathematics. According to the new schedule, Arithmetic and History have been divided so that part of the work is done in the second year. Time has thus been found in the first year for the introduction of other subjects: Botany, Chemistry, Physiology, and Ethics. The change of schedule has increased the interest of the student, and his comprehension of the subjects. Franklin's Arithmetic has been succeeded by Walsh's, which contains a greater number and variety of practical problems.

The Algebra and Bookkeeping have also gained by the distribution of time. The latter requires much writing out of class, and when limited to one term was very taxing to the student.

The employment, this Fall, of an instructor for Mathematics has relieved me of the greater part of the above work, and allowed more time for English, which is greatly needed.

History. The United States History, as far as Washington's administration, is taught in the first year; the remainder in the next. The consultation of different authors has increased since the division, thereby gaining a clearer and wider view of the past.

"The Great Round World" is a small book containing current history, condensed, but written in a very interesting and simple manner. This, in the first year, has supplemented both History and English. The weekly appearance of this pamphlet is looked forward to with great eagerness. It is first used for sight reading, and then for recitation and discussion. "The Week's Current," a paper containing more material and a greater variety of subjects than "The Round World," is used in the second year.

English. The work in English is of various kinds — reading, writing, spelling, technical grammar, correction of errors in composition, dictation, reproduction, business and social forms, observation stories, invention, paraphrase, abstract, topical outline, etc.

History has supplemented the English, not only by oral and written reproduction, but by spelling. The students are allowed a few minutes for reading an article, new to them, and then they write it from dictation. This is followed by correction of spelling, capitals, and punctuation. Many of these errors are common to the majority of the students, and may well be used for a general exercise. A good way, however, is to have the papers rewritten; this impresses upon the individual his own peculiar faults.

The observation story is a short account of some experience belonging to the student, or observed directly by him. This not only cultivates a natural manner of expression, but induces



STORRS COLLEGE CADETS



COMMISSIONED AND NON-COMMISSIONED OFFICERS—STORRS COLLEGE CADETS

a habit of close observation. These stories are told or written without previous warning, and thus the student learns to think quickly.

The oral reproduction of a book is also a good means of training; it requires judgment to select the important parts, and yet hold the attention of the hearers. The other members of the class then write the story, with, of course, some condensation.

I have read to the class extracts from different authors which the students have endeavored to imitate, and thus vary their style of composition.

Respectfully submitted,

L. J. BARBER.

REPORT OF MR. HENRY A. BALLOU.

To the Honorable Board of Trustees:

GENTLEMEN: — The work of the present Senior class in Entomology during the summer term, which was my first at Storrs College, was as follows: Lectures on insects in general and their position in the animal kingdom, manner of life, etc., internal and external anatomy, and insecticides and methods of applying them. Then the orders were taken up, the characteristics of each noted, and certain more or less well known and destructive insects taken as types were considered, and by studying these the methods to be employed against all pests of the same order were learned. A considerable portion of the time was given to the problem of protection against insects by methods the most simple and practicable possible for our farmers and gardeners.

We were somewhat hampered at the beginning of the season by not having a collection of insects.

The free-hand drawing taught by Miss Norton was in connection with the Entomology and it was planned to have drawing lessons upon the subject of the same day's lesson in Entomology. This was carried out as far as possible, and the result was very good, but the lack of collected material for the

work made both classes dependent on the result of our day-to-day collecting, and on this account some changes in our original plan were necessary from time to time. The students were required to collect, mount, and name a certain number of insects, and some of the collections were very meritorious.

The college collection, which is the result of this season's collecting, is not yet all named, that part of the work having been left till winter, when the collecting season is practically over. There are about 200 named species, and perhaps 150 yet unnamed, while of nearly every order there are duplicates enough to furnish material for drawing and laboratory work next season.

No text-book was used in the study of Entomology, but Smith's "Economic Entomology" was recommended for reference, and many of the students procured that work.

For this fall term my work has been in Botany with the first and second year classes. The time has been divided between recitations and laboratory work. For recitations Gray's "How Plants Grow" has been used as a text-book, and in laboratory practice Spalding's "Introduction to Botany." Laboratory work is especially valuable not only in studying the structure of plants, but also in training those habits of observation which are of so much value in the study of nature, and in acquiring skill in the use of the compound microscope.

In the Military Department the young men have shown a very creditable and pleasing interest in the drill. The attendance has been very good, and in such cases of absence and tardiness as have occurred, very satisfactory excuses in most cases have been presented.

The new uniform adds greatly to the appearance of the company. The male students are required to provide themselves with uniforms, and are required to attend drill three times each week. The organization, which is that of a company with officers and drum corps, is given below. The Senior class has had weekly recitations on the Infantry Drill Regulations, and I hope that this may be continued and be extended to the Juniors next term.

Very respectfully,

HENRY A. BALLOU.



BAND—STORRS COLLEGE CADETS



PLANTING CLASS TREE

STORRS COLLEGE CADETS.

H. A. Ballou,	Captain and Commandant.
W. N. Hawley,	Cadet 1st Lieutenant.
C. G. Smith,	" 2d Lieutenant.
C. S. Francis,	" 2d Lieutenant and Band Leader.
Max Schaffrath,	" 1st Sergeant.
C. S. Chapman,	" 1st Sergeant Assigned to Band.
N. J. Webb,	" Sergeant and Drum Major.
W. S. Gillette,	" "
H. L. Garrigus,	" "
H. Kirkpatrick,	" "
J. W. Pincus,	" "
Geo. Smith,	" " and Fire Marshal
H. T. Onthrup,	" Corporal.
G. M. Greene,	" "
E. C. Welden,	" "
R. H. Gardner,	" "
W. M. Nettleton,	" "
B. H. Walden,	" "

REPORT OF MISS JESSIE S. BOWEN,

LIBRARIAN.

To the Trustees of Storrs Agricultural College:

GENTLEMEN: — The library is rapidly becoming a very prominent feature in this institution; each month shows an increase in the number of books drawn, and in the use of the reference books.

We have now five thousand, five hundred forty-four (5,544) volumes entered upon our accession books, and in addition to these there are several hundred volumes of Agricultural Reports and similar works stored away until sufficient shelf-room is provided for them. We have received about two hundred volumes recently from the estate of the late ex-Lieut.-Gov. Hyde, which have as yet not been added to the library owing to the lack of shelf-room. Through an appropriation made for that purpose by the Trustees, an arrangement will be completed whereby shelf-room will be provided in the library for all

books which are now stored outside. Then the Agricultural Reports and Government publications will be thoroughly classified and arranged for ready reference.

The work of collecting the bulletins of the various experiment stations and procuring missing numbers has been carried nearly to completion, and about fifty volumes of them are now in the hands of the binder. When bound and placed on our shelves, with the aid of the card catalogue of these bulletins, issued by the Government, they will furnish a vast store of information on all branches of agricultural science.

Through the efforts of Congressman E. S. Henry, we have received numerous very valuable Government publications during the past year.

The Dewey decimal system is used in classifying the books of the library, and new shelf labels have been added which greatly facilitate the readiness with which books wished for can be found by students for themselves, as they have direct access to the shelves.

The author catalogue has been continued up to date, and work on a subject catalogue has been commenced and will be carried on as rapidly as the other work of the library will permit. This, when finished, will very greatly increase the usefulness of the library for reference work along all lines.

During the past year seven hundred and eighty-six (786) volumes have been added to the library at a cost of four hundred and five dollars ($405); four hundred and ninety-four (494) of these books have been added since September first, and comprise works bearing upon every department of the college, with some sets of particularly valuable reference books which are in constant use by the students.

The reading-room is supplied with sixty of the leading periodicals, which are procured at an expense of about one hundred and twenty-five dollars ($125). The more important of the magazines are bound at the end of the year, and, used in connection with our Poole's Index to Periodical Literature, are very useful as reference books. During the past year we have added thirty-four bound volumes of magazines, and nineteen volumes more are now at the bindery.

The reading-room has recently been greatly improved by the addition of new lamps, which were very much needed.

The library is now open from 8 to 12:15 A. M., and from 4 to 8 P. M. each week day, and on Sunday afternoon from 4 to 6, giving the students ample opportunity for the use of the books and periodicals, which is improved by all. Indeed, there are oftentimes more readers in the room than can possibly be seated, and we hope that in the near future a commodious fire-proof building can be provided for the library, which has now become so valuable that in case of loss by fire many of the books could not be replaced without a very large outlay of money, if, indeed, at all.

Very respectfully submitted,

JESSIE SPENCER BOWEN.

REPORT OF PROF. L. P. CHAMBERLAIN.

To the Honorable Board of Trustees:

GENTLEMEN:—The close of another year brings with it the duty and the privilege of reporting to you a summary of the work of the farm since my last annual report. Many changes have taken place by your direction during the year, along lines of enlargement and improvement which tend to make the farm more helpful to the college as a field for practical and illustrative education.

Among these, the erection and equipment of a creamery, the purchase of a herd of thoroughbred animals of various breeds, and of a portable engine for general use, all indicate necessary and generous expenditures for furnishing all needful facilities for the study of dairying. The large increase of the dairy herd and the addition of a pair of heavier farm horses have necessitated the erection of a barn to provide for stable room, and for convenient storage. This will furnish ample accommodations for a number of years. Additional farm implements, including a sulky-plow, several right-hand and swivel-

plows, and a full supply of hand-tools, are now on hand. A heavy farm wagon, of the best manufacture, also supplies an important need of the farm and the college. While something like full provision has thus been made for present wants, new conditions of extension and improvement will demand new facilities, which the same liberality will no doubt furnish even up to the limit of actual need.

The department of swine has been extended by an addition to the main building, and improved, at your suggestion, by the purchase of a pair of thoroughbred Cheshires, of finest quality. While, in comparison with the dairy, this interest is of only small importance, the utilization of all farm wastes is still a condition of successful farming, and, as dependents of the dairy, swine may be made to utilize its wastes at a considerable profit in food and fertilizer. Probably, while no other of our domestic animals has been treated with such persistent neglect and abuse, no other would have survived so well such depreciating conditions. Here, as elsewhere, "blood will tell," and care is as much a condition of profit.

Quite an area has been added to the available portion of the swamp. Some additional drains have been laid, so that now the main portion is ready for the plow. The excessive rainfall of the past summer, however, greatly delayed the work of reclaiming the drained sections, as it did the late cultivation of the higher lands. But the great law of natural compensation, that converts loss to one interest of the farm into gain to another, is clearly seen in the most beautiful hay-crop of recent years. But the prospective benefit to this leading farm staple, as well as to pasture grasses, by the renewal of their roots, enfeebled by the successive drouths of late summers, promises even greater good.

A larger acreage of corn has been grown than in former years. This was divided about equally between the dent and flint varieties, no preference being given to either in cultivation or fertilization. Both matured equally well, and were of superior quality, but the dent varieties excelled in the yield per acre. A single trial suggests the probability of a similar result from a wider cultivation. The wet season proved most dis-



FARM HOUSE AND BARN



REAR VIEW WITH LAKE

astrous to the potato-crop. A small area of dry land yielded a heavy crop of exceptionally fine quality, while the average yield was hardly enough to repay the cost of production. Special preparation, spraying, and thorough cultivation all ended in partial defeat.

It is needless to speak of the enormous hay-crop, more than to inform you that the larger part was secured in fine condition, and to note the universal prevalence of clover, that has so long been missing from our pastures and meadows. This shows that climatic conditions rather than soil conditions are responsible for its long absence, and points to one of the many advantages of irrigation.

In reviewing the history of the college farm since the establishment of the Storrs School, and contrasting its earlier condition with that of to-day, I think you will allow me to express my feeling of partial satisfaction with the results already obtained, though I am aware that with enlarged facilities its future promises far greater results along lines of general improvement, as well as in the all-important direction of practical education. Let me say, too, in closing this brief report, that I would emphasize the importance of the continued employment of student labor, as a helpful factor.

Respectfully submitted,

L. P. CHAMBERLAIN,

Farm Superintendent.

ROLL OF STUDENTS.

Class of '97.

Harry E. Atwood,	Kensington, Hartford Co.
Robert D. Beardsley,	Plymouth, Litchfield Co.
Frederick N. Buell,	Plymouth, Litchfield Co.
Fred F. Bushnell,	Winsted, Litchfield Co.
Francis Comber,	Hartford, Hartford Co.
John N. Fitts,	East Windsor Hill, Hartford Co.
Charles L. Foskett,	Winsted, Litchfield Co.
Erma L. Fuller,	Mansfield, Tolland Co.
Albert C. Gilbert,	Gilead, Tolland Co.
Ralph D. Gilbert,	Gilead, Tolland Co.
Arthur O. Green,	Hartford, Hartford Co.
Grove H. Johnson,	Winchester Center, Litchfield Co.
Victor E. Lucchini,	Meriden, New Haven Co.
Harry B. Luce,	New Britain, Hartford Co.
Benjamin S. Taylor,	South Glastonbury, Hartford Co.

Fourth Year.

Louis F. Bancroft,	Warehouse Point, Hartford Co.
Albert F. Bidwell,	Canton Center, Hartford Co.
D. Julian Burgess,	Mansfield, Tolland Co.
Charles S. Chapman,	Hartford, Hartford Co.
Charles S. Francis,	Newington, Hartford Co.
Harry L. Garrigus,	Waterbury, New Haven Co.
Walter S. Gillette,	North Haven, New Haven Co.
Willis N. Hawley,	Hawleyville, Fairfield Co.
Herbert Kirkpatrick,	Cromwell, Middlesex Co.
Edwin S. Mansfield,	North Haven, New Haven Co.
Hermon T. Onthrup,	Middletown, Middlesex Co.
Joseph W. Pincus,	Colchester, Tolland Co.
Max Schaffrath,	Waterbury, New Haven Co.
Clinton G. Smith,	Litchfield, Litchfield Co.
George E. Smith,	North Haven, New Haven Co.
Norman J. Webb,	Plymouth, Litchfield Co.

Third Year.

Georgia L. Barnes,	Collinsville, Hartford Co.
Wilfred E. Barnes,	Southington, Hartford Co.
Harry V. Bingham,	Little Haddam, Middlesex Co.
Selma A. Carlson,	Vernon, Tolland Co.
Frank D. Clapp,	East Windsor, Hartford Co.
Roscoe H. Gardner,	Rocky Hill, Hartford Co.
Irvin E. Gilbert,	Deep River, Middlesex Co.
Arthur F. Green,	Mansfield, Tolland Co.
George M. Greene,	Westminster, Windham Co.
Ida L. Hobby,	Mansfield, Tolland Co.
Willard W. James,	North Windham, Windham Co.
Elsie S. Leach,	Plymouth, Litchfield Co.
Willard E. Mason,	Mansfield, Tolland Co.
Edward F. Manchester,	Bristol, Hartford Co.
George H. Miner,	Vernon Center, Tolland Co.
Bertha M. Patterson,	Storrs, Tolland Co.
George L. Rosebrooks, Jr.,	Storrs, Tolland Co.
Clarence E. Smith,	Westminster, Windham Co.
James M. Stocking,	Weatogue, Hartford Co.
Benjamin H. Walden,	Scotland, Windham Co.
Cassius Way,	Gilead, Tolland Co.
Elmer C. Welden,	Scotland, Windham Co.
Katherine R. Yale,	Meriden, New Haven Co.

Second Year.

Robert E. Ayer,	Unionville, Hartford Co.
Frederick J. Baldwin,	Watertown, Litchfield Co.
Lillian A. Ballard,	Putnam, Windham Co.
Olive C. Ballard,	Putnam, Windham Co.
Edwin S. Bishop,	Clintonville, New Haven Co.
Mary C. Brown,	Vernon Center, Tolland Co.
Albert G. Clark,	Middlebury, New Haven Co.
William L. Curtiss,	Meriden, New Haven Co.
Roger P. Dewey,	Buckland, Hartford Co.
Hermon Edmond,	Westminster, Windham Co.
Harry D. Emmons,	Plymouth, Litchfield Co.
Charles S. Fitts,	East Windsor Hill, Hartford Co.
Gertrude E. Grant,	Mound Hope, Tolland Co.
Hester C. Hall,	South Willington, Tolland Co.
George H. Hunt,	East Windsor, Hartford Co.
Anna C. Jacobson,	Gurleyville, Tolland Co.
Irving C. Karr,	West Haven, New Haven Co

SECOND YEAR — (*Continued*).

Edith S. Latimer,	West Simsbury, Hartford Co.
Lena E. Latimer,	West Simsbury, Hartford Co.
John B. Lyman,	East Hampton, Middlesex Co.
Christie J. Mason,	Mansfield, Tolland Co.
Edna M. Nason,	Gurleyville, Tolland Co.
Clifton E. McKenney,	Farmington, Hartford Co.
Willis B. Munson,	Mt. Carmel Center, New Haven Co.
Willis M. Nettleton,	Washington Depot, Litchfield Co.
Albert V. Osmun,	Danbury, Fairfield Co.
Arthur W. Pettee,	Salisbury, Litchfield Co.
Lena M. Roberts,	Hamden, New Haven Co.
Hannah B. Squire,	Storrs, Tolland Co.
Florence S. Swift,	Mansfield Center, Tolland Co.
Smith J. Wood,	Middlebury, New Haven Co.

FIRST YEAR.

Charles E. Blakeley,	East Willington, Tolland Co.
Edwin P. Brown,	Vernon Center, Tolland Co.
Robert E. Buell,	Gilead, Tolland Co.
William W. Dimock,	Merrow, Tolland Co.
Theodore F. Downing,	North Windham, Windham Co.
Charles W. Fairchild,	Nichols, Fairfield Co.
Fannie Farrell,	Storrs, Tolland Co.
John J. Farrell,	Storrs, Tolland Co.
Ralph L. Hoadley,	North Guilford, New Haven Co.
James S. Hunter,	Bridgeport, Fairfield Co.
Everett W. Hyde,	North Haven, New Haven Co.
Julius P. Karp,	Bloomfield, Hartford Co.
Huber C. Landon,	Chaplin, Windham Co.
Bert O. Neff,	Chaplin, Windham Co.
Lottie M. Ofreay,	Mansfield, Tolland Co.
Daniel H. Paige,	Hartford, Hartford Co.
Elbert E. Potter,	North Guilford, New Haven Co.
Emma E. Snow,	Storrs, Tolland Co.
Walter A. Southwick,	Mansfield, Tolland Co.
Leora G. Spencer,	Hamden, New Haven Co.
Henry G. Thorne,	Hartford, Hartford Co.
John H. Vallett,	Uncasville, New London Co.
G. Dana Warner,	Naugatuck, New Haven Co.

STORRS AGRICULTURAL COLLEGE.

ITS AIMS, EQUIPMENT, AND ADVANTAGES.

The Agricultural College of Connecticut was established by an act of the Legislature of 1895, which reads, in part, as follows:

"The Storrs Agricultural College is hereby established, and shall remain an institution for the education of youth whose parent or parents are citizens of the State; and the leading object of said college shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to Agriculture and the Mechanic Arts."

The aim of the Trustees is to carry out the full intent of the United States Government in providing for education in Agriculture and the Mechanic Arts. While those branches of science which pertain to Agriculture have a prominent place in the curriculum, to render this knowledge of most value to the individual and the State, the pupil must be trained in the use of the English language, united with discipline of body and mind to develop all the powers of the man to make the good citizen.

As co-education is adopted at the college, special training is given to the girls in all household matters that they may build up and adorn happy homes.

EQUIPMENT AND FACILITIES.

Connected with the college is a farm of 250 acres, which is extensively used to furnish practical instruction in Agriculture and Horticulture. The buildings provide suitable recitation-rooms and laboratories for instruction in Chemistry, Physics, Botany, Entomology, and other branches of science. Rooms are

provided for students in dormitories as far as the capacity of these will allow. The young ladies are especially fortunate in having for their use a commodious cottage, with accommodations for about twenty-five, and with gymnasium, parlors, dining-hall, and kitchen all located in the same building. The Faculty is composed of twelve men and five women, who have had long training in their special lines, and are well fitted to give valuable aid to the students. The institution now gets the benefit of the entire fund coming to this State from the United States Government, for instruction in Agriculture and the Mechanic Arts. This State is expected to furnish all the buildings and land, so that the fund from the general government may be applied to providing instruction and facilities for instruction. This fund is now supplying generous means for equipping class-rooms with material for illustration, laboratories with their working outfit, and the library with valuable books for reference and general reading.

COURSES OF INSTRUCTION.

The leading courses may be outlined briefly as follows: A department of domestic science is provided for the young ladies. The science of foods and nutrition is taught in the classroom by lectures and text-books, and in the laboratory practical instruction is given in all kinds of cooking; while in the sewing-room, sewing, cutting, and fitting form an important part of their work. The instructor in Physical Culture gives the young ladies important and valuable training in the gymnasium, and a teacher of music is provided for such students of either sex as may elect that study. Agriculture and Horticulture are studied throughout the course, and the young ladies have the privilege of taking up special branches in these lines. The young men have a very practical course in veterinary science dealing especially with the diagnosis of diseases and lameness, and the home treatment of the various ailments to which animals are subject. The different branches of science, such as Mathematics, Physics, Chemistry, Botany, Entomology, Zoölogy, and Geology, are taught to both the young ladies and young men in the same classes.

All students who are to complete the entire course, are required to spend a summer term at the college between the regular third and fourth years. The object of this term is to provide instruction in certain lines of Horticulture and Agriculture, and in Entomology, at a season of the year when specimens for illustration and for laboratory and field work, are available.

TERMS OF ADMISSION AND EXPENSES.

Applicants for admission must be citizens of Connecticut, and at least fifteen years of age, and pass a satisfactory examination in Reading, Spelling, Writing, Arithmetic, Geography, English Grammar, and United States History, in order to enter the first year. Those who have had one or more years in the high school may cover the ground of the first and second years in one year. Graduates of high schools are admitted to the second year upon presentation of a certificate showing satisfactory work during their high school course. Tuition and rooms are free. The rooms are furnished with bed, mattress, table, and chairs. The students are expected to furnish their own bedding, toilet and table linen, lamps, and whatever else they may desire to make their rooms comfortable and pleasant. The only expenses are for board, fuel, lights, and books, and these are furnished at cost. The total expense for one year will vary from $125 to $150, but this may be much reduced by labor. By a regulation of the Trustees, each student is required to deposit $40 at the beginning of each term, to meet expenses for board, etc., or to furnish a guarantee of payment, signed by parent or guardian, with satisfactory surety.

PUBLIC WORSHIP.

Students are expected to attend College Chapel daily, and church services Sunday morning. Parents or guardians may designate what church they desire their wards to attend, otherwise seats are provided in the church near the college.

PRIZES.

The Ratcliffe Hicks prizes of $60 for excellence in English composition were awarded this year to R. D. Gilbert, 1st, $30, and the second of $20 was divided between A. C. Gilbert and L. F. Bancroft.

UNIFORMS.

The military uniform is obligatory. It consists of a very good suit of blue, made to order, very neat and becoming, at a cost of about $15 for coat, pants, and cap, certainly as cheap as a suit of equal quality can be purchased elsewhere.

LOCATION AND RAILROAD CONNECTIONS.

The college is located in a high and healthful region in the town of Mansfield, eight miles north of Willimantic. The railroad station is Eagleville on the Central Vermont road, and is reached from Hartford by the New England, and from New Haven by the Air Line, to Willimantic, where the Central Vermont intersects these lines.

LIST OF TEXT-BOOKS.

Stock Feeding, Henry.
Milk and Its Products, Wing.
Stock Breeding, Miles.
Soils and Crops, Hunt and Morrow.
The Soil, King.
Inorganic Chemistry, Avery.
Organic Chemistry, Remsen.
Qualitative Chemistry, ——— Lectures.
Quantitative Chemistry, Evans.
American Fruit Culturist, Thomas.
Gardening for Profit, Henderson.
Introduction to Botany, Spalding.
How Plants Grow, Gray.
Lessons and Manual of Botany, Gray.
Physics, Gage.

LIST OF TEXT-BOOKS — (*Continued*).

Laboratory Manual of Physics, Evans.
Physical Mathematics, Bourgougnon.
Grammar School Arithmetic, Walsh.
Algebra, Wells.
Plane Geometry, Pettee.
Solid Geometry, Wentworth.
Surveying, Wentworth.
English Grammar, Maxwell.
Composition and Rhetoric, Waddy.
Foundation of Rhetoric, Hill.
English Literature, Brooke.
Lessons in Vocal Expression, Carey.
Elements of Morals, Janét.
Text-Book of Geology, Dana.
Political Economy, Laughlin.
Civil Government, Martin.
Physiology and Hygiene, Martin.
United States History, Montgomery.
New Standard Practical and Progressive Book-Keeping, Bryant.
Sight-Singing, Cole.
The Academy Song Book.
Boston Cook Book, Mrs. Lincoln.
U. S. Army Infantry Drill Regulations.

COMMENCEMENT EXERCISES, WEDNESDAY, JUNE 16, 1897.

PROGRAM.

10:00 A. M.

Music,— Festival March, Mendelssohn.
College Orchestra.
Prayer.
Music,— "Spirit of '97," Geo. L. Tracy.
Ethics.
Ralph Davis Gilbert,* Gilead.

*Honor positions on program given for highest standing during College Course; First, A. C. Gilbert, Second, R. D. Gilbert.

PROGRAM — (*Continued*).

The Future of Rural Connecticut.
HARRY EUGENE ATWOOD, New Haven.

The Back-bone of Connecticut.
ROBERT DEXTER BEARDSLEY, Plymouth.

Music,— Fifth Nocturne, Leybach.

Benefits of Student Government.
FREDERICK NORMAN BUELL, Plymouth.

American Ornamental Gardening.
FRED FORBES BUSHNELL, Winsted.

Man, and the Forces of Nature.
FRANCIS COMBER, Hartford.

Music,— Happy Days in Dixie, Mills.

The Value of Our Republican Form of Government.
JOHN NELSON FITTS, East Windsor.

Coöperative Production.
CHARLES LEWIS FOSKETT, Winsted.

A Talk on Cheese.
ERMA LEONORA FULLER, Mansfield.

Music,— Trio,
Gertrude, Clinton, and Cora Grant.

Our Nation's Greatness.
ARTHUR OTWAY GREENE, Hartford.

The Labor Problem.
GROVE HENRY JOHNSON, Winchester Center.

Value of Literary Societies.
VICTOR ELIZAO LUCCHINI, Meriden.

Music,— Angel Serenade, Soprano Solo with Violin Accompaniment,
Miss Walch and Mr. McFarlane.

Veterinary Science and the Agriculturist.
HARRY BURTON LUCE, New Britain.

Evolution of Horticulture.
BENJAMIN SHIPMAN TAYLOR, Glastonbury.

The Education of the Farmer.
ALBERT CHAMPION GILBERT, Gilead.

Music,— Imperial Reception March, Rollinson.

AFTERNOON EXERCISES.

1 : 15 P. M.

Exhibition Military Drill on the Parade Ground.

2 : 30 P. M.

Music,

Orchestra.

Address,

Col. J. H. Brigham, Assistant Secretary of Agriculture, Washington, D. C.

Music,— Air Variation for Clarionet, L. H. Wheeler.

Conferring of Diplomas.

Awarding of Prizes.

Music,— Happy Days in Dixie. Mills.

ESTIMATED INVENTORY OF PROPERTY ON HAND.

Chemical apparatus,	$385.00
Re-agent and other bottles,	150.00
Chemicals on hand, organic and inorganic,	225.00
Physical apparatus,	675.00
Photographic apparatus,	150.00
Chemical balances,	175.00
Type-writer,	60.00
Office furniture,	30.00
Surveying instruments,	362.00
Furnishing College buildings,	2,100.00
Natural History,	500.00
Mechanical Department, wood and iron shop,	250.00
Stock and tools, Horticultural Department,	743.35
Military Department,	160.00
Horse Barn, Horses,	445.00
Horse Barn, Wagons and sleighs,	482.80
Horse Barn, Harness, etc.,	111.05
Veterinary Department, apparatus and supplies,	1,417.10
Domestic Scientific Department,	475.00
Dormitories,	1,079.17
Kitchen and dining-room outfit,	353.79
Grove Cottage,	1,050.00

FARM MACHINERY, TOOLS, LIVE STOCK, AND FARM PRODUCTS ON HAND DEC. 1, 1897.

	ESTIMATED VALUES.
Dairy machinery,	$1,600.00
Farm machinery and tools,	900.00
2 pair working oxen,	250.00
1 " heavy farm horses,	300.00
1 " light farm horses,	100.00
11 thoroughbred cows (registered),	1,375.00
1 " cow (unregistered),	75.00
7 " calves,	70.00
3 " bulls,	300 00
1 " bull (yearling),	40.00
11 grade cows,	440.00
4 " two-year-old " heifers,	100.00
1 Cheshire boar,	20.00
1 " breeding sow,	15.00
4 shoats,	40.00
6 fat hogs,	120.00
50 tons first crop hay,	600.00
20 " rowen,	240.00
3 " oat and pea hay,	30.00
3 " swamp hay,	18.00
6 " corn stover,	36.00
66 " silage,	165.00
10 bushels buckwheat,	7.50
10 " rye,	7.50
325 " corn,	130.00
300 " potatoes,	240.00
300 " turnips,	90.00
	$7,309.00

POULTRY DEPARTMENT.

Material and supplies purchased from February 10, 1897, to February 10, 1898,	$ 579.19
Inventory February 10, 1897,	1,007.12
	$1,586.31

Inventory February 10, 1898.

Buildings, etc.,	$ 679.29
Stock,	294.23
Supplies on hand,	68.53
Tools,	66.35
Miscellaneous,	148.92
	$1,257.32
Produce sold,	674.31
	$1,931.63

STUDENT LABOR, OCTOBER, 1896—SEPTEMBER, 1897.

On farm,	$739.77
Horticultural department,	573.24
College buildings,	93.45
Boarding department,	305.99
Care of dormitory,	55.35
Ice,	29.30
Horse barn,	174.36
Wood and iron shops,	11.88
Dairy department,	63.88
Poultry department,	64.46
For college,	116.84
	$2,226.52

TREASURER'S REPORT.

H. C. Miles, *Treasurer*,

In account with Storrs Agricultural College.

General Receipts and Expenditures.

Dr.

1896.			
Sept. 30.	By balance of account,		$3,173.57
Oct. 1.	By cash Comptroller,		6,250.00
5.	cash,		387.50
5.	B. F. Koons,		2,500.00
29.	B. F. Koons,		101.82
Nov. 3.	B. F. Koons,		39.79
1897.			
Jan. 2.	Comptroller,		6,250.00
4.	B. F. Koons,		1,200.00
7.	Storrs Experiment Station,		61.04
Feb. 2.	Storrs Experiment Station,		78.03
11.	B. F. Koons,		1,250.00
April 5.	Comptroller,		6,250.00
6.	B. F. Koons,		1,800.00
15.	B. F. Koons,		194.25
June 23.	B. F. Koons,		1,200.00
July 2.	Comptroller,		6,250.00
3.	Storrs Experiment Station,		49.85
12.	Margaret Kenwill,		40.64
12.	A. B. Peebles, rent of cottage,		37.50
12.	Storrs Experiment Station,		1.32
13.	Storrs Experiment Station,		59.15
Aug. 18.	A. B. Peebles, rent of cottage,		37.50
	Ratcliffe Hicks Prize Fund,		60.00
			$37,271.96

Classification of Expenses for Fiscal Year, Oct. 1, 1896, to Sept. 30, 1897.

State Funds.

Books and stationery,	$1,779.99
Postage,	150.79

Traveling expenses,		398.29
Telephone,		400.55
College grounds and repairs on buildings,		2,348.88
Salaries,		1,636.80
College supplies,		82.11
Provisions,		4,048.56
Servant hire,		1,098.34
Fuel and lights,		2,448.06
Dormitory outfit,		332.68
Extension department,		537.23
Kitchen outfit,		370.24
Washing,		861.54
Shop supplies,		34.68
Poultry department,		551.95
Dairy department,		1,022.55
Church pew rent,		25.00
Horticultural department, supplies,		240.97
labor,		529.90
stock,		146.18
Farm labor,		1,150.54
supplies,		726.60
Blacksmithing (farm barn),		83.85
Buildings,		204.55
Horse barn, labor,		138.37
feed,		298.69
Farm barn, feed,		472.10
Cottage, No. 1,		1,472.56
Blacksmith shop,		344.07
Blacksmithing (horse barn),		95.28
Horse barn, supplies,		257.71
Printing supplies,		22.45
Farm fertilizers,		303.30
Horses purchased,		690.20
Gymnasium,		100.90
Horticultural fertilizers,		117.50
Damages,		15.00
Green-house,		142.31
Cow purchased,		40.00
Heating apparatus,		458.93
Insurance,		1,161.66
Building plans,		25.00
Dairy building,		1,572.00
Hicks prizes,		50.00
	$28,988.86	
Balance of account,	8,283.10	
		$37,271.96

NEW HAVEN, CONN., Dec. 29, 1897.

This certifies that we have examined the accounts of Henry C. Miles, Treasurer of the Storrs Agricultural College, for the fiscal year ending Sept. 30, 1897, compared them with the vouchers, and found them correct. The balance in the hands of the Treasurer on said date was eight thousand, two hundred and eighty-three dollars, and ten cents ($8,283.10). We also examined the accounts of the special appropriations for building a girls' dormitory, and for the investigation of food economy, compared them with the vouchers, and found them correct.

FRANKLIN B. NOYES, } *Auditors of*
D. WARD NORTHROP, } *Public Accounts.*

MORRILL FUND (U. S. GOVERNMENT GRANT) OF 1890.

Dr.

1896.			
Sept. 20.	By balance of account,		$8,012.53
Dec. 11.	By cash, State Treasurer,		10,000.00
15.	interest,		112.50
1897.			
May 4.	State Treasurer,		8,000.00
July 7.	State Treasurer,		4,000.00
9.	interest,		68.00
			$30,193.03

Classification of expenses from the Morrill Fund (U. S. Government grant) of 1890 for the fiscal year ending Sept. 30, 1897 :

Salaries,	$12,505.64
Books for library,	932.81
Thoroughbred cattle,	1,633.29
Agricultural tools and equipment for instruction,	95.31
Horticultural machinery and stock,	121.51
Dairy machinery and stock,	1,756.51
Chemicals and chemical apparatus,	289.44
Physical apparatus,	398.28
Natural History outfit and microscopical supplies,	284.88
Surveying instruments,	107.06
Fruit models,	198.77
Wood-shop tools and stock,	303.63
Iron-shop tools and stock,	452.80
Domestic Science — Sewing-room outfit and stock,	155.00
Kitchen outfit and stock,	262.02
Skeletons of domestic animals,	145.70

Equipment for instruction in English,		97.40
Printing-room equipment,		408.93
	$20,148.98	
Balance on account,	10,044.05	
		$30,193.03

HARTFORD, CONN., Jan. 25, 1898.

This certifies that we have examined the accounts of Henry C. Miles, Treasurer of the Storrs Agricultural College, for the fiscal year ending Sept. 30, 1897, relating to the Morrill Fund, compared them with the vouchers, and found them correct. The balance of said fund in the hands of the Treasurer on said date was ten thousand and forty-four and 5/100 dollars ($10,044.05).

W. E. SIMONDS, } *Auditors of Storrs*
T. S. GOLD, } *Agricultural College.*

LAND GRANT FUND (U. S. GOVERNMENT GRANT) OF 1862.

Dr.

1897.			
Feb. 9.	By cash, State Treasurer,	$25,732.29	
July 9.	interest,	130.00	
			$25,862.29

Classification of the expenses from the Land Grant Fund (U. S. Government grant) of 1862, for the fiscal year ending Sept. 30, 1897 :

Salaries,	$1,308.20	
Traveling expenses,	311.49	
Fuel,	1,838.81	
Postage,	7.80	
Telephone,	10.17	
Legal expenses,	500.00	
College sundries,	20.00	
Janitor,	56.25	
Library furniture,	80.11	
Printing,	21.75	
Stationery,	4.84	
	$4,159.42	
Balance of account,	21,702.87	
		$25,862.29

New Haven, Conn., Dec. 29, 1897.

This certifies that we have examined the accounts of Henry C. Miles, Treasurer of the Storrs Agricultural College, for the fiscal year ending Sept. 30, 1897, relating to the Land Grant Fund, compared them with the vouchers, and found them correct. The balance of said fund in the hands of the Treasurer on said date was twenty-one thousand seven hundred and two dollars and eighty-seven cents ($21,702.87).

FRANKLIN B. NOYES, } *Auditors of*
D. WARD NORTHROP, } *Public Accounts.*

SALARIES PAID DURING THE FISCAL YEAR 1896–7.

B. F. Koons,	$2,500.00
C. F. Phelps,	1,700.00
A. B. Peebles,	1,700.00
A. G. Gulley,	1,700.00
G. A. Waterman,	1,700.00
H. S. Patterson,	1,000.00
Miss Margarett Kenwill,	958.00
Miss H. L. Smith,	750.90
Miss L. J. Barber,	710.00
E. J. Lewis,	700.00
C. L. Beach,	579.00
L. P. Chamberlain,	950.00
W. L. Chamberlain,	600.00
H. C. Miles, Treasurer,	481.25

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